U.S. Customs and Border Protection

Report to Congress on
the Automated Commercial Environment (ACE)
Fourth Quarter 2006

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1. Legislative Requirement

The Automated Commercial Environment (ACE) Report to Congress is provided quarterly in accordance with the requirement set forth in House Report 109-79, which states:

"The Committee believes that ACE and U.S. Customs and Border Protection (CBP) modernization should be integrated, if not form the core, of DHS information system and border security technology, including the Container Security Initiative and Automated Targeting Systems. The Committee directs CBP to address such issues in its quarterly reports on ACE implementation progress."

H. R. Rep. 109-79, at 31 (2005).

In addition, the ACE Report to Congress satisfies section 311(b)(3) of the Customs Border Security Act of 2002 (Trade Act of 2002), which requires that:

Not later than 90 days after the date of the enactment of this Act, and not later than the end of each subsequent 90-day period, the Commissioner of CBP shall prepare and submit to the Committee on Ways and Means of the House of Representatives and the Committee on Finance of the Senate a report demonstrating that the development and establishment of the ACE computer system is being carried out in a cost-effective manner and meets the modernization requirements of Title VI of the North American Free Trade Agreement Implementation Act.

Customs Border Security Act of 2002, Pub. L. No. 107-210, § 311, 116 Stat. 933, 973 (2002).

This report also complies with Government Accountability Office (GAO) Report 04-719, Customs Modernization, May 2004, which requires CBP to report on the status of open GAO recommendations.

2.   Executive Summary

The Report to Congress on ACE provides an update on ACE accomplishments, challenges, fiscal status, and upcoming program milestones. Most significantly, the report demonstrates (1) how ACE is helping CBP achieve the Department of Homeland Security (DHS) strategic objectives; and (2) is providing CBP personnel in the field with enhanced capabilities to better accomplish the CBP mission of preventing terrorism and facilitating legitimate trade and travel.

Congress has stated that ACE and CBP Modernization should be integrated with, if not form the core of, DHS information systems and border security technology. Accordingly, this report also addresses the ongoing CBP efforts to integrate ACE with other systems. This report also discusses efforts to engage other Government agencies to participate in the ACE/International Trade Data System (ITDS), the status of efforts to resolve GAO open audit recommendations, and the status of progress against program commitments.

The Report to Congress on ACE is provided to the Senate Finance Committee, House Ways and Means Committee, and both the House and Senate Appropriations Committees. The reporting period for this update is July 1 to September 30, 2006. A review of previous reports may be helpful in understanding the full context of the information provided in this edition of the report. Appendix A outlines ACE implementation and capabilities.

Notable in this Report

CBP deployed ACE truck processing capabilities to the following land border ports in New York: Chateaugay, Trout River, Fort Covington, Churubusco, Jamieson's Line, Massena, Ogdensburg, Alexandria Bay, and Buffalo (Peace Bridge). ACE is now operational at 49 land border ports.

Although the effect of ACE on truck processing time at land border ports continues to vary by port, trucks were processed, on average, 23 percent faster than the pre-ACE baseline during July and August (based on average results in Detroit, Ambassador Bridge, and Port Huron, Michigan; Laredo and El Paso, Texas; Otay Mesa, California; Nogales, Arizona; and Pembina, North Dakota).

On August 31, 2006, CBP completed the Test Readiness Review (TRR) for Screening and Targeting (S&T): Targeting Framework (S2), indicating that S2 system acceptance testing could begin. CBP completed its own Production Readiness Review (PRR) for S2 on September 28, 2006. Completion of the PRR indicates that testing was successfully completed and that S2 capabilities are ready to move to a pilot phase. CBP is actively working with the DHS Chief Information Officer (CIO) to obtain certification of the S2 PRR.

CBP updated the ACE program plan, following completion of a comprehensive analysis and validation of the cost and schedule for future releases. The updated program plan calls for ACE to attain full operational capability by August 2011, consistent with the Acquisition Program Baseline (APB), at a cost of $3.1 billion ($200 million less than the APB).

As part of ongoing trade community outreach efforts, CBP hosted approximately 250 truck carriers and 350 importers and brokers at the ACE Exchange conference in Chicago, Illinois, August 15-17, 2006. The conference provided participants an opportunity to learn and discuss the latest status of ACE, including electronic truck manifest processing, Periodic Monthly Statement, and forthcoming Entry Summary, Accounts, and Revenue (ESAR) capabilities. Due to strong trade community interest in this event, CBP plans to hold an expanded, second ACE Exchange for approximately 500 trade community participants October 30-November 3, 2006, in Tucson, Arizona.

3.   Background

In 2001, the U.S. Customs Service (now part of CBP) embarked on ACE as its first project in a multiyear modernization effort to reengineer agency business processes and the information technology that supports them. The initial plan was to focus first on ACE and trade processing and then on other elements of CBP Modernization, including enforcement. The terrorist attacks on September 11, 2001, changed this focus. ACE is being developed to support the CBP mission of: (1) protecting the American public against terrorists and the instruments of terror and (2) enforcing the laws of the United States while fostering our Nation's economic security through lawful international trade and travel.

With the establishment of DHS, CBP has also aligned ACE with the DHS mission and strategic goals. ACE will help reduce our Nation's vulnerability to threats without diminishing economic security by providing threat awareness, prevention, and protection for the homeland. Specifically, ACE will help:

- detect, deter, and mitigate terrorist and other threats;

- assess vulnerabilities to homeland security and the American public;

- safeguard U.S. citizens and critical infrastructure from acts of terrorism; and

- serve the public by effectively facilitating the movement of lawful trade.

Working closely with other Government agencies and the trade community, CBP is modernizing to (1) enhance interagency information sharing and analysis; (2) replace and/or supplement existing systems taxed by increasing demands; and (3) comply with legislation requiring greater agency efficiency and effectiveness to better serve the public. Among other capabilities, CBP personnel will have even more automated tools and information to decide – before a shipment reaches U.S. borders – what cargo

should be targeted because it poses a potential risk, and what cargo should be expedited because it complies with U.S. laws.

4.   Compliance with the Customs Modernization Act

The 1993 Customs Modernization Act (Mod Act) was passed with legislation implementing the North American Free Trade Agreement. The Mod Act is the legal foundation for the CBP Modernization effort and promotes the concepts of "informed compliance" and "shared responsibility." To help accomplish these objectives, the Mod Act outlined requirements for automation and emphasized electronic trade processing. The delivery of ACE capabilities will fulfill the Mod Act by enabling trade community users and CBP officers to electronically submit and retrieve import transaction data through an intuitive, standards-based, secure web portal. ACE is providing new capabilities to government users and the trade community by enabling the redesign of trade compliance processes and strengthening S&T systems. These are key requirements for enhancing border security and expediting legitimate trade. Appendix B shows how ACE releases are aligned with the Mod Act and will fulfill its requirements upon the completion of ACE.

5.   Performance

This section highlights program accomplishments during the 4th quarter of Fiscal Year (FY) 2006, outlines efforts to address open GAO recommendations, and provides an overall assessment of the program.

5.1   Selected ACE Accomplishments

The following are selected program accomplishments between July 1, 2006, and September 30, 2006:

- **Expanded deployment of automated truck manifest capabilities on the Northern Border.** CBP deployed ACE truck processing capabilities to the following land border ports in New York: Chateaugay, Trout River, Fort Covington, Churubusco, Jamieson's Line, Massena, Ogdensburg, Alexandria Bay, and Buffalo (Peace Bridge). ACE is now operational at 49 land border ports.

- **Completed the Critical Design Review (CDR) for Rail and Sea Manifest capabilities.** On August 10, 2006, CBP completed its own CDR for e-Manifest: All Modes – Cargo Control and Release (Release 6), e-Manifest: Rail and Sea Manifest (M1), signaling that stakeholders have accepted requirements and the system design. CBP is working with the DHS CIO to obtain certification that M1 is ready to move beyond the CDR milestone.

- **Completed the TRR for Targeting Framework (S2).** On August 31, 2006, CBP completed the TRR for S2, indicating that S2 system acceptance testing could begin.

- **Completed the PRR for Targeting Framework (S2).** CBP completed its own PRR for S2 on September 28, 2006. Completion of the PRR indicates that testing was successfully completed and that S2 capabilities are ready to move to a pilot phase. CBP is working with the DHS CIO to obtain certification that S2 is ready to move beyond the PRR milestone.

- **Launched the Field Readiness Network.** CBP created the Field Readiness Network, comprised of more than 250 CBP personnel (located primarily at Field Operations and Service Port locations), to facilitate the planned nationwide implementation of ESAR: Master Data and Enhanced Accounts (A1) capabilities. Members of this network are charged with ensuring that all CBP locations have completed site readiness preparations to ensure the successful implementation of A1 in May 2007.

- **Expanded e-Manifest processing and Electronic Data Interchange (EDI) certification:** CBP received 11,614 e-Manifests in August 2006, up from 8,009 e-Manifests in July and 6,301 e-Manifests in June 2006. The number of carriers certified to submit e-Manifests via EDI increased 14 percent in the 4th quarter to 338 companies, including 321 carriers and 17 service providers.

- **Increased growth in periodic monthly statement collections:** CBP collected via the August 21, 2006, ACE periodic monthly statement $709.7 million in duties and fees, representing 26.1% of total adjusted statement collections. Total collections of duties and fees via ACE since CBP issued the first periodic monthly statements in July 2004 now top $6 billion.

- **Held ACE Exchange outreach conference for the trade community:** Approximately 250 truck carriers and 350 importers and brokers attended the agency-sponsored ACE Exchange Conference in Chicago, Illinois, August 15-17, 2006. The conference provided participants an opportunity to learn and discuss the latest status of ACE, including electronic truck manifest processing, Periodic Monthly Statement, and forthcoming ESAR capabilities.

- **Updated the ACE Program Plan:** CBP updated the ACE program plan, following completion of a comprehensive analysis and validation of the cost and schedule for future releases. The updated program plan calls for ACE to attain full operational capability by August 2011, consistent with the Acquisition Program Baseline (APB), at a cost of $3.1 billion ($200 million less than the APB).

- **Expanded Participating Government Agency (PGA) participation in ACE.** In July 2006, the Office of Foreign Missions, U.S. Department of State, became an ITDS PGA, bringing to 29 the number of PGAs in ACE/ITDS. The ITDS Board of

Directors also expanded its membership to include representatives from the Bureau of Alcohol, Tobacco, Firearms, and Explosives as well as the U.S. Department of Agriculture, Food Safety Inspection Services.

5.2   Open GAO Recommendations

The Cargo Systems Program Office (CSPO) leadership met with GAO representatives on August 29, 2006, to review the status of open GAO recommendations, ensure a common understanding of the intent of these recommendations, and discuss next steps toward demonstrating how the Agency is implementing them. The following section summarizes recent and planned efforts to address each open recommendation. Where appropriate, consolidated responses are provided below. Each response references both the Audits and Reviews Tracking System (ARTS) number used by the CBP Office of Information and Technology (OIT) and the GAO to track the status of each open recommendation as well as the number of the original GAO report from which the recommendation derives. Appendix C demonstrates the alignment between GAO recommendations and the responses contained in this report.

5.2.1   Cost Estimating

The GAO has recommended that Modernization expenditure plans be based on cost estimates that are reconciled with independent cost estimates (ARTS 1595/GAO-05-267). As part of its review of both the FY 2005 and FY 2006 Modernization Expenditure Plans, the GAO found that the Modernization Program had implemented its recommendation. CBP will share the results of its third annual reconciliation of cost estimates upon completion in September 2006. The Agency believes that this information, coupled with GAO's positive findings in each of the past 2 years, should provide sufficient evidence of the institutionalization of cost estimate reconciliations to close this recommendation.

The GAO has also recommended that CBP develop and implement a rigorous and analytically verifiable cost-estimating program that is consistent with standards established by the Software Engineering Institute (ARTS 1403/GAO-02-545). GAO has recognized that CBP established a disciplined cost-estimating process and made significant progress in implementing this recommendation by: (1) defining and documenting processes for estimating program costs; (2) hiring a contractor to develop independent life cycle cost estimates that enable an independent government analysis and validation of primary cost and schedule; and (3) tasking a support contractor with evaluating both the independent and the CBP estimates against the Software Engineering Institute's (SEI) cost estimating criteria.

During the aforementioned August 29, 2006, meeting, GAO representatives stated that the support contractor charged with evaluating CBP and independent cost estimates had reported that CBP is using three different cost estimating methodologies across ACE business areas. GAO representatives indicated CBP should adopt a consistent methodology as the basis for its cost estimating program. As part of the annual

evaluation of CBP and independent cost estimates, ACE program leadership met with the aforementioned independent contractor to fully outline the CBP cost estimating process. Specifically, all ACE program business areas (ESAR, Cargo Control and Release, and S&T) generate cost estimates based on a "bottoms-up" approach in accordance with the program cost, schedule, and risk methodology that is published annually as Appendix B of the ACE Program Plan. Cost estimating guidelines distributed to all business areas further ensure the use of a consistent methodology and assumptions while recognizing that the level of cost estimate detail will vary depending upon the level of available system requirement definitions. The result is a single, consistently applied methodology for all program business areas based on varying levels of detailed requirements. In its latest report, the cost estimate evaluation support contractor agreed with the Agency's view that the ACE program is using a consistent cost estimating methodology.

5.2.2   Human Capital Management

The GAO has recommended that CBP immediately develop and implement a human capital management strategy that provides both near- and long-term solutions to program office human capital management limitations, and that CBP report quarterly to the Appropriations Committees on the progress of efforts to do so (ARTS 1400/GAO-02-545). In its most recent report, the GAO recommended that this strategy be included in the June 30, 2006, Report to Congress on ACE (ARTS 1765/GAO-06-580). Further to these recommendations, CSPO developed the CSPO Strategic Human Capital Management Plan (SHCMP), which is an ACE program-specific iteration of the OIT SHCMP. The CSPO SHCMP was developed in coordination with the OIT SHCMP to provide better near- and long-term human capital management practices for the OIT offices that are involved in ACE development, including CSPO and the Targeting Analysis Systems Program Office (TASPO). Both the CSPO SHCMP and the OIT SHCMP are aligned with the Human Capital Assessment and Accountability Framework (revised by the Office of Personnel Management (OPM) in 2005), which reflects the consolidated guidance of the Office of Management and Budget (OMB), OPM, and GAO. The CSPO SHCMP was approved by the CBP Commissioner on June 16, 2006. The five key goals of the CSPO SHCMP and attendant strategies for achieving these goals were included in the June 30, 2006, edition of this report and are also included in Appendix D, below.

During the aforementioned August 29, 2006, meeting, GAO representatives indicated that the ACE human capital plan lacks a gap analysis of ACE program human capital needs. Moreover, contractors should be included in the program's human capital plan. Based on this feedback from the GAO, CBP recognizes that the CSPO SHCMP does not sufficiently address GAO recommendations on human capital. In an effort to better address these recommendations, CBP is in the process of coordinating a meeting with the GAO Director of Information Technology (IT) Systems Issues to discuss how the GAO has seen human capital planning successfully implemented in other large government programs.

5.2.3 ACE Support for Other Homeland Security Applications

The GAO has recommended that CBP take appropriate steps to have future ACE expenditure plans specifically address proposals or plans to extend or use ACE infrastructure to support other homeland security applications (ARTS 1462/GAO-03-406). CBP has not planned any ACE expenditures that would enable ACE *infrastructure* (equipment such as hardware environments) to support other homeland security applications. However, ACE program leadership is actively working to coordinate ACE with other homeland security *applications* (IT systems that provide tools and information to help front-line officers ensure the security of our Nation). Although these coordination efforts have not resulted in the identification of specific cost savings for the ACE program or other related homeland security programs, OIT anticipates that this coordination will directly advance the Agency's trade facilitation and homeland security goals. Specific examples of this coordination include the following:

- ACE program managers have supported the work of the CIO Council Cargo Screening Subcommittee (CSS), which has focused on coordinating overall DHS cargo screening information technology architecture. Given that the CSS, Case Management, and People Screening Subcommittees of the CIO Council have recommended a common solution for the DHS Service Oriented Architecture (SOA) and Enterprise Service Bus (ESB), the CIO Council has merged these subcommittees into a single subcommittee that will concentrate on the ESB- and SOA-related efforts. ACE program managers plan to continue supporting the efforts of this new subcommittee.

- OIT is taking steps to ensure that CBP systems, including ACE and the Automated Targeting System (ATS), are compliant with the Service Oriented Architecture (SOA) that was developed by OIT and adopted by the DHS CIO Council. Compliance with the SOA will facilitate any future efforts to leverage ACE and ATS capabilities across the Department.

- ACE Screening and Targeting capabilities are being integrated with ATS. The modernized ATS will provide new Screening and Targeting capabilities and will enable greater flexibility to incorporate emerging technologies in the future.

- OIT is coordinating ACE implementation with the existing support for the Container Security Initiative (CSI) via existing production systems, including the Automated Manifest System and ATS. When completed, e-Manifest: All Modes— Cargo Control and Release (Release 6) and S&T capabilities will support the automation requirements of the CSI program.

- ACE is leveraging the existing Treasury Enforcement Communications System to provide front-line officers with commercial truck license plate and driver query capabilities.

- OIT is coordinating with Secure Border Initiative (SBI) program planners to ensure interoperability between SBI technology and the existing CBP technology architecture.

- CBP continues to coordinate with other Federal agencies through ITDS.

5.2.4   Measurement Program Management Improvement Efforts

The GAO has recommended that CBP define measures as well as collect and use associated metrics for determining whether prior and future program management improvements are successful (ARTS 1597/GAO-04-719). OIT has implemented, and will continue to implement, program management improvements. Recent examples of program management improvements include the creation of the Cargo Requirements Management Board that will gather and determine the disposition of all change requests to production systems (thereby ensuring the efficient use of resources); a new invoice review policy that should eliminate submission of long-outstanding charges; the implementation of office space changes that ensure the collocation of personnel within a given business area (to facilitate efficient intra-team communications); and the implementation of Remedy, discussed below in section 5.2.5. OIT intends to review recent improvements and discuss the benefits— where possible and practical— in future editions of this report. OIT also plans to institutionalize the development of benefit projections for use in evaluating the merits of future program management improvements, and to measure the impact of future improvements.

5.2.5   Accountability Framework

The GAO has recommended that CBP implement an accountability framework that covers all program commitment areas, including key expected or estimated system (1) capabilities, use, and quality; (2) benefits and mission value; (3) costs; and (4) milestones and schedules (ARTS 1736/GAO-05-267). In its most recent report, the GAO also recommended that this framework be included in the June 30, 2006, edition of this report (ARTS 1765/GAO-06-580).

ACE program leadership has implemented the use of the ACE Accountability Framework, which was included in the last edition of this report and is depicted in Appendix E. Updated monthly and used as the basis for monthly Program Management Reviews (PMRs), the ACE Accountability Framework supports informed executive decision-making and provides external program stakeholders with consistent, transparent reporting on progress against program commitments. The framework provides a comprehensive assessment of ACE capabilities, cost, schedule, Earned Value Management (EVM) indicators, program risks, mission values and benefits (relative to Department and agency strategic goals), and business performance measures.

CBP recognizes that further completion of efforts to develop ACE performance measures and targets are necessary to fully satisfy the foregoing GAO

recommendation. The agency's efforts to address the open GAO recommendation on the development of performance targets are discussed below in Section 5.2.11.

As part of its recommendations on establishing an accountability framework, the GAO has also recommended that CBP ensure the currency, relevance, and completeness of commitments made to the Congress in expenditure plans (ARTS 1737/GAO-05-267). The GAO also recommended that CBP report in future expenditure plans progress against commitments contained in prior expenditure plans (ARTS 1739/GAO-05-267). CBP recognizes GAO concerns regarding the time required to complete the expenditure plan approval process prior to transmitting expenditure plans to Congress. The Agency continues efforts to expedite the expenditure plan approval process and will ensure that future expenditure plans contain the timeliest information available when the review process is initiated. To ensure that future expenditure plans report progress against commitments contained in prior expenditure plans, CBP will include the ACE Accountability Framework as an appendix to the FY07 Expenditure Plan. The ACE Accountability Framework tracks milestones and other program commitments made in all prior expenditure plans. It also includes specific planned and actual cost data.

The GAO has also recommended that the accountability framework ensure the establishment of reliable data relevant to measuring progress against commitments (ARTS 1738/GAO-05-267). Although the ACE Accountability Framework does not report on the status of this recommendation, OIT has undertaken several measures to establish reliable data. First, OIT has combined Product Trouble Report (PTR) tracking under a development team, which has greatly improved establishing, assessing, and reporting on data that assists in assessing system quality and performance. Second, OIT has implemented the use of Remedy software to track all trouble tickets. Remedy will notify ACE users via E-mail when trouble tickets can be resolved only through the resolution of a PTR. Remedy will also notify ACE users via e-mail when resolution and implementation of a PTR will result in closure of a trouble ticket. Third, OIT has taken steps to ensure that Dimensions, a configuration management software tool that is also used to track system defects, is current and provides an accurate inventory of all PTRs.

5.2.6   ACE Program Quarterly Reporting

The GAO has recommended that CBP accurately report quarterly to the appropriations committees on the Agency's progress in implementing open GAO recommendations (ARTS 1598/GAO-05-267 and ARTS 1764/GAO-06-580). CBP has been providing quarterly reports on ACE since November 2002 in response to language contained in reports that accompany annual Appropriations Acts, the Customs Border Security Act of 2002 (Trade Act of 2002). CBP will continue to report on efforts to fully address open GAO recommendations through the subject quarterly reports. As noted above, ACE program leadership met with GAO representatives on August 29, 2006, to ensure CBP understands the intent of each open GAO recommendation and can accurately report on the status of efforts to address each action. Further to GAO concerns about ACE quarterly Congressional reports addressing all open GAO recommendations,

Appendix C demonstrates the alignment between GAO recommendations and the responses contained in this report.

5.2.7   Satisfaction of Legislative Conditions

The GAO has recommended that the DHS Secretary direct the appropriate departmental officials to fully address the legislative conditions associated with having an approved Privacy Impact Assessment (PIA) and ensuring architectural alignment (ARTS 1762/GAO-06-580). On July 14, 2006, DHS approved and published the ACE PIA at http://www.dhs.gov/dhspublic/interapp/editorial/editorial_0511.xml. DHS has established a methodology for evaluating the compliance of ACE with the DHS Enterprise Architecture (EA). CBP will work to facilitate DHS efforts to evaluate the compliance of ACE with the DHS EA as part of the FY07 Modernization Expenditure Plan development process.

The GAO has also recommended that CBP fully address those legislative conditions associated with employing effective Independent Verification and Validation (IV&V) practices (ARTS 1763/GAO-06-580).   Beginning in October 2005, CBP took steps to align Modernization program IV&V efforts more closely with the Institute of Electrical and Electronic Engineers (IEEE) 1012-2004 Standard for Software Verification and Validation. In June 2006, OIT implemented Version 2.0 of the IV&V Implementation and Management Plan (IMP), which ensures that IV&V efforts are aligned with the IEEE 1012-2004 standard. The IV&V IMP, Version 2.0, also addresses satisfaction of quality standards for all ACE products, as well as user needs (as defined through requirements, use cases, and design documents). CBP has forwarded the IV&V IMP, Version 2.0, to the GAO.

5.2.8   Risk of Severe Defects

The GAO has recommended that the accountability framework use criteria for exiting key readiness milestones that adequately consider indicators of system maturity, such as severity of open defects (ARTS 1740/GAO-05-267). The GAO has also recommended that key milestone decisions should be documented in a way that reflects the risks associated with proceeding with unresolved severe defects and provides for mitigating these risks (ARTS 1766/GAO-06-580). FY 2006 Expenditure Plan approval letters by the Senate and House of Representatives Chairmen of the Subcommittees on Homeland Security, Committees on Appropriations, further directed CBP to work with the DHS CIO to certify that each release or drop is ready to proceed beyond CDR and PRR milestones.

OIT holds weekly formal gate review meetings, at which all ACE and other OIT projects are reviewed at the completion of each stage of the Systems Development Lifecycle (SDLC). OIT has developed consolidated gate review information templates (which provide a common standard for preparing gate review presentations) and a standard agenda (which ensures that pertinent issues and risks are evaluated and addressed). Formal pre-gate reviews and defined gate review criteria have been instituted, including

verification of PTR measures in the appropriate stages. These gate criteria are used to determine a project's readiness to transition to the next SDLC stage.

In addition, the ACE program office has strengthened the SDLC gate review process by ensuring that specific risk assessment and acceptance at each review is a requirement for proceeding to the next stage of the SDLC. In addition, the ACE Risk and Issue Management Process has been updated to account for the need to identify risks associated with proceeding beyond SDLC gate reviews. Under the updated process, the designated ACE risk manager is working with project teams to identify appropriate risks, mitigation plans, and impact assessments prior to gate reviews. Gate review decisions will be based on documentation that includes risks and their associated impact. Documented risks are entered into ACE program office risk management tracking system, Active Risk Manager (ARM), to ensure that CBP has visibility of these risks and can take action to mitigate them as appropriate. CBP will invite GAO representatives to observe this strengthened SDLC gate review process at the upcoming ESAR: Master Data and Enhanced Accounts (A1) Test Readiness Review in January 2007.

The initial implementation of this process occurred on May 4, 2006, as part of the CDR for A1, which successfully passed this gate review without any defects. Any known risks associated with proceeding past the milestone were entered into ARM and were documented in the A1 CDR package that CBP submitted to the DHS CIO for certification. On June 27, 2006, the DHS CIO determined that A1 was conditionally compliant with CDR evaluation criteria. CBP has resolved questions about Section 508 compliance for A1, and continues to work with DHS to resolve questions regarding cost estimating. On August 10, 2006, CBP successfully completed the CDR for e-Manifest: Rail and Sea Manifest (M1). Identified risks for M1 were also documented in ARM. Efforts by the DHS CIO to review and certify the M1 CDR began on September 13, 2006. As directed in the aforementioned FY 2006 Expenditure Plan approval letters, CBP will continue to work with the DHS CIO to certify that ACE secure cargo management releases and S&T releases are ready to proceed beyond the CDR and PRR milestones. TASPO is currently coordinating with the Office of the DHS CIO regarding the certification of the Targeting Framework (S2) PRR.

5.2.9   Concurrent Development

The GAO has recommended that CBP minimize the degree of overlap and concurrency across ongoing and future ACE releases. CBP should also capture and mitigate the associated risks of any residual concurrency (ARTS 1767/GAO-06-580). CBP has taken steps to "decouple" Screening and Targeting releases from ACE secure cargo management releases. This approach will reduce system development interdependencies between ACE Screening and Targeting and secure cargo management capabilities.

CBP has in place a solid program for managing remaining concurrent project and program activities and associated risks. A key element of this program management

foundation is the use of ARM, a leading software tool that provides visibility of program risks, issues, and mitigation plans. CSPO is using ARM to track release-specific risks that are associated with concurrent development and is in the process of developing mitigation plans for these risks. Other elements of the ACE program management foundation include the Requirements Traceability and Management tool, which minimizes the potential for duplicative efforts by providing a complete view of requirements for all ACE releases and software drops; the Integrated Master Schedule, which provides visibility of the planned and actual release/delivery schedules and associated interdependencies; the development of risk-adjusted cost and schedule estimates; and EVM, which provides early warning signals of potential problems and serves as the basis for making course corrections across the program.

CBP has also taken specific action in three areas to reduce potential contention for common resources across ACE releases. First, CBP has conducted extensive planning to ensure that development milestones eliminate contention for computer hardware environments needed for development, integration, testing, and training activities. Second, CBP is centrally managing underlying ACE shared software services to maximize efficient use of resources, enhance responsiveness to workload peaks, and provide consistent technical management approaches across releases. Third, CBP has divided ACE releases into smaller groups of capabilities or "drops." Drops with similar development schedules are being managed as ACE "deliveries." This approach will improve planning and reduce contention for hardware environments and program staff, as well as resources required for system testing, legacy system integration, training, and deployment.

5.2.10   Earned Value Management

The GAO has recommended that CBP use EVM in the development of all existing and future releases (ARTS 1768/GAO-06-580). CBP uses EVM to manage all current ACE releases under contract. The agency implemented EVM standards for ESAR: Master Data and Enhanced Accounts (A1) and ESAR: Entry Summary and Revenue (A2) upon establishment of the performance management baseline at the Integrated Baseline Review (IBR) on August 25, 2006. CBP expects to implement EVM standards for S3 upon establishment of a performance measurement baseline at the S3 IBR, which is currently planned for October 2006. CBP also anticipates conducting negotiations for the ACE Foundation Architecture and Engineering (FA&E) renewal contract in October 2006, after which an IBR will be held to establish the FA&E performance baseline. IBRs are held within 45 days of the completion of contract negotiations.

5.2.11   Performance Measures

In its most recent report, the GAO recommended that CBP explicitly align ACE program goals, benefits, desired business outcomes, and performance measures (ARTS 1770/GAO-06-580); develop the range of realistic ACE performance measures and targets needed to support an outcome-based, results-oriented accountability framework (ARTS 1769/GAO-06-580); and fully address those legislative conditions associated

with measuring ACE performance and results (ARTS 1763/GAO-06-580). In a letter to the Secretary, DHS, dated March 16, 2006, the Chairman, Subcommittee on Homeland Security, Senate Committee on Appropriations, further recommended that efforts to develop and align ACE performance measures be completed by July 1, 2006, and that resulting updated measures be certified as complete by the CBP Commissioner. The Chairman, Subcommittee on Homeland Security, House of Representatives Committee on Appropriations, also recommended via a letter dated April 4, 2006, to the Under Secretary for Management, DHS, that ACE performance measures be certified by the Department by July 1, 2006.

In accordance with the aforementioned GAO recommendations and Congressional directives, CBP established a framework for the ACE performance measurement program based on the CBP Performance Reference Model (PRM), which helps narrow the focus of measurement activity on measurement indicators that reflect the agency's goals and objectives. Using this framework, CBP developed ACE performance measures (descriptions of the measures the Agency plans to collect) that are aligned with the Agency's strategic goals, objectives, strategies, and Desired Results based on the CBP Strategic Plan, which also demonstrates linkages to DHS strategic goals. (When completing this effort, CSPO determined that ACE Desired Business Results, which had been developed for the ACE program before the publication of the current CBP strategic plan, had been effectively superseded by the Desired Results contained in the CBP strategic plan). The ACE performance measures were certified as complete and aligned with the CBP and DHS strategic plans via memoranda from the CBP Commissioner and the DHS CIO on June 30 and July 6, 2006, respectively. Appendix F provides examples of ACE performance measures.

Having completed this effort, CSPO is now in the process of establishing specific performance targets to support the accountability framework. CSPO is establishing baselines (the "as-is" state), the planned improvement to the baselines, and targets (the "to-be" state), which will be followed by the collection and reporting of measurement data, analysis of results, and corrective action. As of the writing of this report, CSPO anticipates finalizing by September 30, 2006, the schedule for completing remaining work on the establishment of performance targets.

For those ACE releases that have already been fielded, CBP is implementing the use of system and survey generated data to measure the technology inputs, supported process outputs, and ultimate business outcomes of ACE, including user satisfaction, CBP operational efficiency, and trade facilitation benefits. CBP will institutionalize ongoing data collection and reporting of results relative to the ACE performance measures and targets reflected in the CBP PRM through management reports such as the ACE Accountability Framework. As ACE proceeds through its lifecycle, some measures and targets may need to be updated or eliminated based on lessons learned and changes to system capabilities. CBP will maintain the ACE performance measurement program's ability to continually evaluate the contribution of ACE to the Agency's goals, strategies, and objectives.

5.3   Program Assessment

CBP has completed efforts to validate the cost and schedule estimates for future ACE releases. When validating these estimates, CBP accounted for the increased complexity of ESAR (Release 5) and e-Manifest: All Modes – Cargo Control Release (Release 6) that was revealed through continued engagement with the trade community, PGAs, and field personnel, as well as the "decomposition" of legacy system software code that has been discussed in recent editions of this report. Based on the results of the cost and schedule analysis, ACE will be fully deployed and operational by August 2011, consistent with the Acquisition Program Baseline (APB), at a cost of $3.1 billion ($200 million less than the APB). Nonetheless, the cost and schedule analysis points to the need for continued efficient execution of development and deployment efforts to maintain current cost and schedule projections. Complete cost and schedule information is included in the ACE Program Plan Version 12.1. Appendix G of this report compares the current schedule outlook with the program baseline.

A key outcome of cost and schedule validation efforts is the planned delivery of Full Screening and Targeting (S4) capabilities within Advanced Targeting (S3) or as enhancements to other S&T capabilities. For example, CBP will incorporate the initial operational and technical measures of S&T effectiveness (previously planned for S4) within S3. Refined operational and technical measurement capabilities planned for S4 will be released as enhancements to S3. Additional analytical tools planned for S4, as well as the extension of screening capabilities to all transportation modes and transactions, will also be deployed in phases as enhancements to S&T capabilities. Fielding previously planned S4 capabilities in phases rather than in a single release is expected to provide critical analytical tools to end-users sooner than previously planned, while also affording CBP greater flexibility to select new analytical tools as technology evolves. This incremental implementation approach will also ensure that the deployment of extended cargo screening capabilities is aligned with the deployment of ESAR (Release 5) and e-Manifest: All Modes— Cargo Control and Release (Release 6) capabilities, which will provide the enhanced shipment transaction data that is prerequisite to extended screening.

Reflecting continuing efforts to deploy new S&T capabilities as soon as possible, CBP plans to introduce specific Advanced Targeting (S3) capabilities prior to the completion of S3. Because certain S3 capabilities are largely independent of one another, they can be fielded as interim enhancements to ATS instead of waiting to field these enhancements as part of the overall S3 release. Future editions of this report will discuss these ATS enhancements as they are fielded. The overall S3 development effort continues according the SDLC milestones outlined in Appendix G.

CBP remains focused on completing the deployment of e-Manifest: Trucks (Release 4) capabilities.   Due to the time required to implement the performance upgrades referenced in the previous edition of this report, CBP expects to complete deployment to land border ports in New York in early October 2006, rather than August 2006, as projected in the previous edition of this report. CBP currently projects that deployment

to land border ports in Vermont and New Hampshire will be completed October 2006. Recognizing that a continuation of the previously planned deployment sequence would cause deployment in Alaska to coincide with potentially dangerous winter weather conditions (which are expected to begin in the fall), CBP has rescheduled the Alaskan deployment for Spring 2007. As evidenced by the decision to implement the aforementioned performance upgrades, the e-Manifest: Trucks deployment schedule remains subordinate to ensuring that the operation of ACE and existing information technology systems fully satisfy the operational requirements of front-line officers. Based on existing projections, CBP expects to complete the deployment of e-Manifest: Trucks (Release 4) ACE truck processing capabilities in May 2007. ACE truck processing capabilities are now operational in 49 land border ports.

Increasing numbers of carriers are taking advantage of ACE e-Manifest capabilities: CBP received 11,614 e-Manifests in August 2006 (up from 8,009 in July and 6,301 in June). The effect of ACE on truck processing time at land border ports continues to vary by port. In the high-volume port of Detroit (Ambassador Bridge), Michigan, trucks are being processed 26 percent faster (based on a 78 second average processing time during July and August 2006) than the pre-ACE baseline. During the same time period, trucks were also processed faster than the pre-ACE baseline in the following ports: Laredo, Texas (45 seconds or 41 percent faster); El Paso, Texas (72 seconds or 12 percent faster); Port Huron, Michigan (86 seconds or five percent faster); and Otay Mesa, California (90 seconds or 28 percent faster). In Nogales, Arizona (65 seconds), and Pembina, North Dakota (118 seconds), truck processing times have increased by 28 percent and three percent, respectively. On average, trucks in the aforementioned ports were processed 23 percent faster than the pre-ACE baseline in July and August 2006.

Trade community participation in ACE continues its upward trend. Periodic monthly statement receipts grew to $709.7 million in August 2006, representing 26.1 percent of total adjusted collections. Overall, there are more than 3,200 ACE Secure Data Portal accounts, and the number of corporate entities (based on Importer of Record Number) approved to pay duties and fees monthly increased 22 percent during July and August to 3,409 – bringing FY 2006 growth in entities approved for Periodic Monthly Statement to more than 291 percent.

CBP is developing and preparing to field new ACE capabilities that will further strengthen screening and targeting efforts and streamline operations for CBP officers and the trade community. Targeting Framework (S2) will include new tools for managing and discerning relationships between entities, enable system intake of large quantities of data from many more sources, and automate many of the tasks required to identify and track potential terrorist activities. With the completion of the e-Manifest: Rail and Sea Manifest (M1) CDR, CBP will begin developing modernized and integrated ocean and rail manifest software that will further help officers discern those shipments that represent potential risk and expedite the release of legitimate cargo by providing a consolidated view of manifest, entry, and screening and targeting results. CBP also has initiated work on e-Manifest: Air Manifest and Cargo Release (M2), which, when added

to existing ACE truck processing capabilities and forthcoming M1 capabilities, will provide an integrated Multi-Modal Manifest cargo processing system for the truck, rail, ocean, and air modes of transportation. Software development also continues on ESAR: Master Data and Enhanced Accounts (A1) capabilities in preparation for the planned Test Readiness Review during the second quarter of FY 2007. A1 will further expand ACE account capabilities for commercial entities ranging from commercial drivers to sureties. It will also establish ACE as the lead system for master data elements in preparation for ESAR: ESAR (A2) capabilities that will modernize financial management and post-release processing capabilities spanning the entry summary through liquidation. To prepare for the smooth implementation of A1 capabilities in spring 2007, CBP has developed a Field Readiness Network comprised of more than 250 CBP personnel (located primarily at Field Operations and Service Port locations) to ensure completion of all site readiness preparations.

6.   Program Baseline

6.1   Overall Schedule and Cost

CBP continues to manage to the Acquisition Program Baseline, which reflects a $3.3 billion program that will attain Full Operating Capability (FOC) by August 2011. Baseline schedule and cost estimates were validated through the Independent Government Cost Estimate. As noted above, CBP projects that the attainment of ACE FOC by August 2011 can be completed at a cost of $3.1 billion.

6.1.1   Detailed Development and Deployment Schedule

Appendix G, Schedule Outlook, compares the current outlook for ACE development and deployment milestones with the program baseline.

6.1.2   Near-Term Milestones

The following are key near-term milestones scheduled between October 1, 2006, and December 31, 2006.

October 2006

- CBP will complete the Project Initiation and Authorization Review for e-Manifest: Air Manifest and Cargo Release (M2), marking the initiation of work to define M2 user and functional requirements, project plans, and security requirements.

- Completion of the Operational Readiness Review (ORR) for Targeting Framework (S2) will mark the attainment of S2 initial operating capability.

- CBP projects the deployment of ACE truck processing capabilities to the Lewiston Bridge in Buffalo, New York, (marking the completion of deployment to land border

ports in New York) and the following land border ports in Vermont: Derby Line (Interstate 91), Norton, Canaan, and Beecher Falls.

- CBP projects it will host approximately 500 brokers, carriers, and importers at the second ACE Exchange conference in Tucson, Arizona, October 30 – November 1, 2006.

November 2006

- CBP projects the deployment of ACE truck processing capabilities to remaining land border ports in Vermont (including Highgate Springs, Alburg Springs, Alburg, Morses Line, Richford, West Berkshire, East Richford, Pinnacle, North Troy, and Derby Line (Route 5)) as well as St. John and Fortuna, North Dakota.

- Initial Business Objects capabilities will become operational, providing ACE Secure Data Portal users with enhanced reports and data analysis tools.

December 2006

- CBP projects the completion of e-Manifest: Trucks (Release 4) deployment to remaining land border ports in North Dakota, including Ambrose, Carbury, Noonan, Dunseith, Sherwood, Antler, Northgate, Westhope, and Portal, North Dakota.

- CBP will pilot ACE wireless capabilities that allow officers to perform cargo release tasks from a wireless device.

- Completion of the Project Definition Completion Review milestone for e-Manifest: Air Manifest and Cargo Release (M2) will signal that user and functional requirements are defined and that system design work can begin.

6.2 Fiscal Status

The FY 2006 Modernization Expenditure Plan, approved by Congress on April 4, 2006, provides $316.8 million for the design and development of cargo management and Screening and Targeting capabilities. It also supports program management, architecture and engineering activities; enhancements to existing ACE capabilities; costs for infrastructure, operations and maintenance; program office operations; and the ITDS efforts to define PGA requirements for ACE. The FY 2007 Modernization Expenditure Plan, which is consistent with the President's FY 2007 budget and is now under review by DHS, will continue the foregoing ACE program activities. To date, Congress has appropriated and released $1.71 billion for ACE/ITDS. Of this amount, $1.61 billion has been obligated, and $1.37 billion has been expended (94 percent and 80 percent of released funding, respectively) as of August 31, 2006. Figure 1, below, provides a summary of ACE funding.
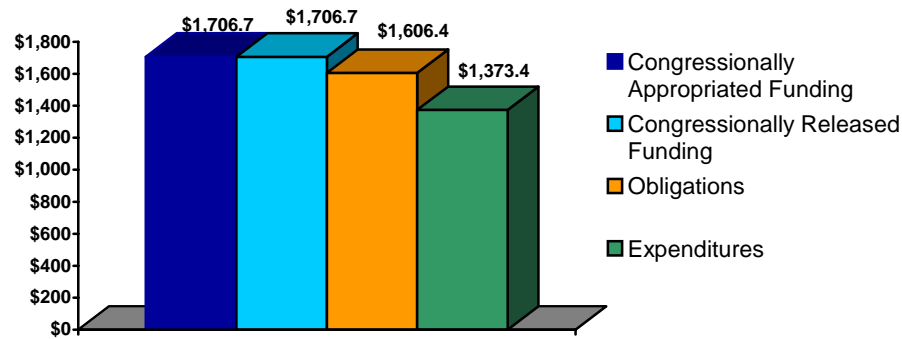
Fig. 1: ACE and ITDS Funding Status as of August 31, 2006

7. Conclusion

CBP continues to deliver and develop ACE capabilities that will secure our Nation's supply chain and facilitate the vast majority of legitimate trade that drives our economy. Officers from Douglas, Arizona, to Detroit, Michigan, are already using ACE truck processing capabilities to process incoming truck cargo, thereby reducing paperwork and providing increased time to evaluate the legitimacy of incoming shipments. Voluntary submission of ACE electronic truck manifests continues to grow as carriers begin preparing for the implementation of a mandatory e-Manifest policy in 2007, in accordance with the Customs Border Security Act of 2002. Each week, yet more carriers, brokers, and importers, establish ACE accounts to manage their transactions via the ACE Secure Data Portal. Each month, more importers and brokers begin using ACE to simplify payment of duties and fees and manage their import transactions.

ACE remains a complex and challenging endeavor, as CBP maintains and refines existing ACE capabilities, continues to expand the deployment of ACE truck processing capabilities, and develops new ACE releases. To address these challenges, CBP continues focus on rigorous definition of system requirements, providing clear direction to the prime contractor, managing program risks, ensuring system quality, and controlling cost and schedule through disciplined independent cost estimating and the application of earned value management analysis. The Agency's program management efforts are reflected in the recent top rating of "effective" on the OMB Program Assessment Rating Tool submission for the ACE program. CBP also continues to engage stakeholders from the trade community, other Government agencies, and the CBP workforce to ensure they are prepared for the introduction of new ACE capabilities and that key user requirements are included in future ACE releases.

THE AUTOMATED COMMERCIAL ENVIRONMENT

For more information:

Additional information on ACE may be found on the CBP Web site (www.cbp.gov) under the ACE: Modernization Information Systems link.

Previous reports to Congress on ACE may be found on the CBP Web site at http://cbp.gov/xp/cgov/toolbox/about/modernization/ace/newsletters/quarterly_reports/

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Appendix A. ACE Implementation and Capabilities

ACE will deliver increased border security and enable improved trade compliance. It will also increase efficiency and improve customer service for key stakeholders, which include importers, brokers, carriers, and Government agencies.

In June 2003, ACE Account Creation was launched with 41 initial importer accounts given access to the ACE Secure Data Portal. Account Creation provides initial online account capabilities to CBP and the trade community.

Periodic Payment was launched in June 2004, and an ORR was successfully conducted in August 2004. It allows importers and brokers with ACE accounts to centralize payment processing and to utilize periodic monthly statement and payment capabilities through Automated Clearinghouse Credit and Debit. This release also provides an initial customer account-based subsidiary ledger interface with the CBP general ledger for financial transaction processing, and an expanded account view into account activity logs and exam findings.

Periodic Payment expanded the account management framework to a larger trade audience, including brokers, carriers, and CBP representatives overseeing those areas. The Account Profiles for importers, brokers, and carriers will support some information relevant to the Customs-Trade Partnership Against Terrorism. A Significant Activities Log provides a record of communications between the account and CBP (and ultimately with PGAs).

The e-Manifest: Trucks capability, which includes an automated truck manifest, expedited information processing, and a primary inspector interface (consolidating seven separate cargo release systems), was piloted in Blaine, Washington, in December 2004. Following completion of the pilot, the e-Manifest: Trucks capability was deployed to selected Northern and Southern Border ports near select hub cities.

In June 2006, CBP deployed Screening Foundation (S1) capabilities to the National Targeting Center. S1 provides a robust business rules engine to allow easy creation and assessment of rules for air, rail, sea, and truck modes of transportation.

The following is an outline of the features in future ACE releases:

ACE Secure Cargo Management Capabilities

Entry Summary, Accounts, and Revenue (Release 5)
- ESAR: Master Data and Enhanced Accounts (A1)
  - Most account types, including broker, carrier, commercial driver, importer, consignee, surety, cartman, lighterman, third party claimants, foreign trade zone operator, service provider, warehouse operator, and manufacturer ID/shipper.
  - Master and reference data in ACE

- Cross-account access
- Merge accounts

- ESAR: Entry Summary and Revenue (A2)
  - Entry summary processing
  - Liquidation/closeout
  - Post-summary corrections
  - Reconciliation processing
  - Quota/visa processing
  - Team review processing
  - Anti-dumping/countervailing duty processing
  - Licenses, permits, certificates, and other documents
  - Program participation
  - Managed accounts
    - Prior disclosure processing
    - Protest processing
  - Finance processing
    - Accounts Receivable
    - Collections and receipts
    - Refunds
    - Bond application storage
    - Bond sufficiency
    - Drawback financials

e-Manifests: All Modes – Cargo Control and Release (Release 6)
- e-Manifest: Rail and Sea Manifest (M1)
  - Cargo manifest processing for sea/rail modes of transportation and conversion of cargo control databases to multi-modal format
  - Initial Multi-Modal Manifest reporting
  - Enhanced information reporting and cargo control capabilities, including:
    - Complete itinerary, improved display of cargo stowage plan, validation of the 24- hour pre-arrival notification rule, and expanded vessel information for sea transport
    - Improved display of the train cargo manifest, house bill of lading information, and expanded train information for rail transport
    - Expanded inter-modal event reporting by trade partners
  - Enhanced data sharing with PGAs
  - Secure wireless capability for CBP Officers to communicate remotely and to query and update transaction and enforcement data
  - Improved method of tracking in-bond (in-transit) cargo and closing it, if it is exported
  - Utilization of the United Nations standard cargo stowage plan for container vessels (BAPLIE) to assist in identifying unmanifested containers that represent a threat vector to the United States.

- e-Manifest: Air Manifest and Cargo Release (M2)
  - Air manifest
  - Cargo manifest processing and shared multi-modal database with truck, rail, sea, air, and reference files in the ACE Secure Data Portal for carrier accounts, PGAs, and CBP
  - Modernization of Cargo Selectivity "entry" processing (cargo release) in ACE
  - Accept all major entry types
  - Linkage of Bill of Lading and entry data
  - Modernized vessel entrance and clearance
  - Enhanced vessel conveyance management capabilities
  - Automated fee calculations
  - Enhanced data sharing with PGAs

- e-Manifest: Exports and Mail Entry Writing System (MEWS) (M3)
  - Export processing (modernization of deployed Automated Export System application)
  - Modernization of MEWS application; enhanced targeting of international mail

Exports & Cargo Control (Release 7):
- ESAR: Drawback, Protest, and Importer Activity Summary Statement (IASS) (A3)
  - Drawback
  - Enhanced protest
  - IASS

- e-Manifest: Custodial Entities, Pipelines, and Batch Processes (M4)
  - Manifest, e-Release, enforcement, and tracking for mail, hand-carry, and pipeline

ACE Screening and Targeting Capabilities

Targeting Framework (S2)
- Replacement for Targeting Framework prototype with production scale system
- Workflow to support Secured Integrated Government Mainframe Access.
- Single sign-on capability with ATS
- Workflow to support transfer of events from National Targeting Center to/from Port of Entry
- Support Semantic Extraction and integration with external data sources.

Advanced Targeting (S3)
- Additional screening capabilities and extended targeting tools for trend and pattern analysis
  - Enhanced criteria management and criteria impact assessment
  - Extended targeting functionality (identification of anomalies and potential areas for extended targeting)
  - Extended screening capability to include additional areas (e.g., ACE accounts)
- Evaluating screening and targeting results

- Extensions to the CBP Risk Management Circle (e.g., metrics and compliance measures that will provide insight into, and feedback on, operational and technical targeting effectiveness)
- Feedback loop

Appendix B. Alignment of ACE Releases with the Modernization Act

The following table illustrates the alignment of ACE Releases with the Modernization Act, Subtitle B, Automation Requirements.

Percentage of Functionality Completed			10%	25%	50%	75%	90%	100%

Modernization Act National Customs Automation Program HR 3450, Subtitle B, Sec. 631	ACE Foundation and Account Creation (Releases 1 and 2)	Periodic Payment (Release 3)	e-Manifest: Trucks (Release 4)	Screening Foundation (Screening S1)	Targeting Foundation (Screening S2)	Entry Summary, Accounts and Revenue (A1, A2 - Release 5)	Advanced Targeting (Screening S3)	Cargo Control Release	Exports and Cargo Control (A3, M4 - Release 7)
Electronic entry of merchandise *Sec. 411(a)(1)(A)*								90%	100%
Electronic entry summary of required information *Sec. 411(a)(1)(B)*						25%			100%
Electronic transmission of invoice information *Sec. 411(a)(1)(C)*						25%			100%
Electronic transmission of manifest information *Sec. 411(a)(1)(D)*			10%					90%	100%
Electronic payment of duties, fees, and taxes *Sec. 411(a)(1)(E)*		10%				25%			100%
Electronic status of liquidation and reliquidation *Sec. 411(a)(1)(F)*						25%			100%
Electronic selection of high risk entries for examination:									
(1) cargo selectivity and			10%	25%			100%		
(2) entry summary selectivity *Sec. 411(a)(1)(G)*					100%				
Electronic filing and status of protests *Sec. 411(a)(2)(A)*									100%
Electronic filing (including remote filing under section 414) of entry information with the Customs Service *Sec. 411(a)(2)(B)*								90%	100%

Appendix B. Alignment of ACE Releases with the Modernization Act, continued

Percentage of Functionality Completed						
	◔ 10%	◔ 25%	◑ 50%	◕ 75%	◕ 90%	● 100%

Modernization Act National Customs Automation Program HR 3450, Subtitle B, Sec. 631	ACE Foundation and Account Creation (Releases 1 and 2)	Periodic Payment (Release 3)	e-Manifest: Trucks (Release 4)	Screening Foundation (Screening S1)	Targeting Foundation (Screening S2)	Entry Summary, Accounts and Revenue (A1, A2 - Release 5)	Advanced Targeting (Screening S3)	Cargo Control Release	Exports and Cargo Control (A3, M4 - Release 7)
Electronic filing of:									
(1) import activity summary statements and									●
(2) reconciliation *Sec. 411(a)(2)(C)*						●			
Electronic filing of bonds *Sec. 411(a)(2)(D)*						◕			●
Electronic penalty process *Sec. 411(a)(2)(E)*									●
Electronic filing of drawback claims, records, or entries *Sec. 411(a)(2)(F)*									●
Other components initiated by the Customs Service to carry out the goals of this subpart:									
(1) Account Management	◔	◑				●			
(2) Periodic Monthly Statement		◑				◕			◕
(3) Inbond and Cargo Tracking *Sec. 411(a)(2)(G)*								◕	●

Appendix C. Open GAO Recommendations

The following table lists all open GAO recommendations, the corresponding ARTS tracking number, the original GAO report in which each recommendation was published, and the section or sections of this report, which specifically address each recommendation.

	Recommendation	ARTS Tracking Number	Original GAO Report Number	Section(s) of this Report that Address(es) GAO Recommendation
1	Ensure that future expenditure plans are based on cost estimates that are reconciled with independent cost estimates.	1595	GAO-05-267	5.2.1
2	Develop and implement a rigorous and analytically verifiable cost estimating program that embodies the tenets of effective estimating as defined in SEI's institutional and project-specific estimating models.	1403	GAO-02-545	5.2.1
3	Immediately develop and implement a human capital management strategy that provides both near- and long-term solutions to program office human capital capacity limitations, and report quarterly to the Appropriations Committees on the progress of efforts to do so.	1400	GAO-02-545	5.2.2
4	Have future ACE expenditure plans specifically address any proposals or plans, whether tentative or approved, for extending and using ACE infrastructure to support other homeland security applications, including any impact on ACE of such proposals and plans.	1462	GAO-03-406	5.2.3
5	Define measures, and collect and use associated metrics, for determining whether prior and future program management improvements are successful.	1597	GAO-04-719	5.2.4
6	Define and implement an ACE accountability framework that fulfills several conditions:	--	--	--
	a. Covers all program commitment areas, including key expected or estimated system (a) capabilities, use, and quality; (b) benefits and mission value; (c) costs; and (d) milestones and schedules.	1736	GAO-05-267	5.2.5
	b. Ensures currency, relevance, and completeness of all program commitments made to the Congress in expenditure plans.	1737	GAO-05-267	5.2.5
	c. Ensures reliable data relevant to measuring progress against commitments.	1738	GAO-05-267	5.2.5

Appendix C. Open GAO Recommendations, continued.

	Recommendation	ARTS Tracking Number	Original GAO Report Number	Section(s) of this Report that Address(es) GAO Recommendation
	d. Ensure future expenditure plans report progress against commitments contained in prior expenditure plans.	1739	GAO-05-267	5.2.5
	e. Ensure criteria for exiting key readiness milestones adequately consider indicators of system maturity, such as severity of open defects.	1740	GAO-05-267	5.2.8
7	Report quarterly to the House and Senate Appropriations Committees on efforts to address open GAO recommendations.	1598	GAO-05-267	5.2.6
8	Direct the appropriate departmental officials to fully address those legislative conditions associated with having an approved privacy impact assessment and ensuring architectural alignment.	1762	GAO-06-580	5.2.7
9	Fully address those legislative conditions associated with measuring ACE performance and results and employing effective IV&V practices.	1763	GAO-06-580	5.2.7 5.2.11
10	Accurately report to the Appropriations Committees on CBP's progress in implementing our prior recommendations.	1764	GAO-06-580	5.2.6
11	Include in the June 30, 2006, quarterly update report to the Appropriations Committees a strategy for managing ACE human capital needs and the ACE framework for managing performance and ensuring accountability.	1765	GAO-06-580	5.2.2 5.2.5
12	Document key milestone decisions in a way that reflects the risks associated with proceeding with unresolved severe defects and provides for mitigating these risks.	1766	GAO-06-580	5.2.8
13	Minimize the degree of overlap and concurrency across ongoing and future ACE releases, and capture and mitigate the associated risks of any residual concurrency.	1767	GAO-06-580	5.2.9
14	Use EVM in the development of all existing and future releases.	1768	GAO-06-580	5.2.10
15	Develop the range of realistic ACE performance measures and targets needed to support an outcome-based, results oriented accountability framework, including user satisfaction with ACE.	1769	GAO-06-580	5.2.11
16	Explicitly align ACE program goals, benefits, desired business outcomes, and performance measures.	1770	GAO-06-580	5.2.11

Appendix D. Strategic Human Capital Management Plan

The following table lists the five goals of the CSPO SHCMP and the planned strategies supporting each goal.

Goal 1: Expand culture of strategic leadership
Strategies:
1. Establish a mentoring program between seasoned Project Managers and graduates of the Project Management course.
2. Define temporary detail assignments between Headquarters staff and the field, supporting cross training and to help employees gain management, field experience, and technical skills.
3. Incorporate knowledge sharing as a priority among management teams and create this as a regular agenda item at staff meetings. Analyze and define processes to increase knowledge sharing.
Goal 2 – Develop a flexible, quality hiring strategy
Strategies:
1. Expand the Student Career Experience Program (SCEP) to attract young information technology students.
2. Partner with CBP Office of Human Resource Management (HRM) and OIT's Workforce Management Group (WMG) to identify innovative ways to compete for qualified IT professionals at all grade levels.
3. Offer PM graduates the opportunity to put their PM skills into practice by offering 90-day temporary duty to shadow a manager and manage a project with appropriate guidance and mentoring.
4. Offer more rotational and promotional opportunities between headquarters staff [e.g., OIT and Office of Field Operations (OFO)] and/or the field.
Goal 3 – Develop and implement a Succession Management Plan
Strategies:
1. Identify potential leaders within the mid-management ranks to backfill the successions in the next several years in conjunction with the Office of Human Resources Management to ensure Merit Principles are followed.
2. Identify positions of risk and build a cadre of key technical or management staff who is skilled in several key areas of expertise.
3. Identify high-risk bench strength areas and develop a contingency plan to assure the area is covered.
Goal 4 – Development and Retention of Employees
Strategies:
1. Identify career paths for the following positions so that employees can develop expertise in a technical or managerial area with equivalent promotional potential: • Project management • Senior technical positions • Engineer • Business manager
2. Provide rotation and promotion opportunities between the Field and headquarters and between OIT and OFO.
3. Continually Improve the Project Management Program (PMP): • Ensure appropriate criteria for selection into Project Management Program training • Opportunities for newly trained and/or certified Project Managers to manage projects (90 day detail or shadowing) • Experienced Project Managers visit class during training. • Trainees apply for identified rotational opportunities to work as a Project Manager.
4. Cross train employees in critical skills areas.
5. Analyze and benchmark effective knowledge management strategies.
6. Review work life programs that would provide a better quality of life for the work force: e.g., flexible workplace, work schedule, retention bonuses, etc.
7. Offer more group awards for special teams or projects to both reward employees and encourage teamwork.
Goal 5 – Re-Define a Performance Culture (Reward Excellence)
Strategies:
1. OIT anticipates a future need to respond to the following types of changes that are likely to come about with MAX[HR]: • Revised job evaluation system • Modified salary and classification system • New performance management system • Modified labor-management relations system

Appendix E. ACE Accountability Framework

The following chart illustrates the categories of data that are captured on ACE capabilities, cost, schedule, EVM indicators, risks, mission values and benefits, and business performance measures.

Release Name (Release #)   **Period of Performance**

Description

Plan	Comments

Accomplishments

Cost / EV

	Original Plan*	Current Plan*	Contract Value	Estimate (EAC)	Actuals	Percent Complete	CPI	SPI	CV	Projected VAC	VAC %

Schedule

Milestone	Original Plan*	Current Plan	Contract	Estimate	Actual	Comments
PDCR						
PDR						
CDR						
TRR						
PRR						
ORR						

General Comments

* Original Plan is Progam Plan V11.2
Current Plan is Program Plan v12.1 with estimates to V.12.1

Acquisition Sensitive

Appendix E, continued

The following chart illustrates the categories of data that are captured on ACE capabilities, cost, schedule, EVM indicators, risks, mission values and benefits, and business performance measures.

Release Name (Release #)

Risk	Risk/Issue #	Risk Statement				Summary of Mitigation Plan and Status		

Mission Value / Benefits	DHS Strategic Goals	CBP Strategic Goals	ACE CBA Benefits	ACE DBR	ACE DBR Objective	Release Objective

Performance Measures	Performance Measure	FY05		12 Mth Average		June		FY07		FY08	
		Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual

Appendix F. ACE Performance Measures

Appendix E demonstrates how the new ACE performance measures will be aligned to CBP strategic goals, objectives, and strategies. Specific performance measures will be included in the next edition of this report.

CBP Performance Reference Model (PRM) for ACE										
CBP Strategic Goals	Objectives	Strategies	Measurement Area	Measurement Category	Measurement Grouping	Performance Measures	Release	Baseline FY05	Planned Improvement to Baseline	Actual Results FY06
1: Preventing Terrorism at Ports of Entry: Prevent terrorists and terrorist weapons, including weapons of mass destruction and weapons of mass effect, from entering the United States.	1.2: Improve information and targeting	1.2.1: Use advanced passenger and cargo information (NTC, ATS-Air, ATS, Screening and Targeting-ACE) to pre-screen, target and identify potential terrorists and terrorist shipments and any related activity.	Mission and Business Results - Service for Citizens	Homeland Security	Border and Transportation Security (BTS)	(Increase) percent cargo risk mitigated (as measured by the Number of shipments accepted for exam by CBP officers above the mandatory review threshold divided by the total Number of system selected shipments above the mandatory review threshold)	All S&T	TBD (new measure, 7/06)	TBD	
			Mission and Business - Mode of Delivery	Regulatory Compliance and Enforcement	Inspections and Auditing	(Increase) % of eManifests (truck)	R4	5%	15%	1.25%
			Customer Results	Customer Benefit	Customer Impact or Burden	(Increase) percent of entries released without intervention	All S&T	TBD (new measure, 7/06)	TBD	
			Processes and Activities	Productivity and Efficiency	Productivity	(Increase) number of security focused intensives designated for exam	S&T	TBD (new measure, 7/06)	TBD	
			Technology	Effectiveness	User Satisfaction	(Increase) percent users satisfied with S&T tools usability (data presentation, entry, and extraction; intuitive user interface; etc...)	S&T	TBD (new measure, 7/06)	TBD	
					Data Standardization or Tagging	(Increase) Number of data sources interfaced/referenced	S&T	TBD (new measure, 7/06)	TBD	

Appendix F. ACE Performance Measures, continued

CBP Strategic Goals	Objectives	Strategies	Measurement Area	Measurement Category	Measurement Grouping	Performance Measures	Release	Baseline FY05	Planned Improvement to Baseline	Actual Results FY06
4: Facilitating Legitimate Trade and Travel: Facilitate the more efficient movement of legitimate cargo and people.	4.1: Modernize Possessing systems	4.1.1: Develop and improve systems that can provide advance manifest information for pre-screening cargo containers, agricultural products and passengers to aid in the identity of high risk commercial enforcement.	Mission and Business Results - Service for Citizen	Law Enforcement	Citizen Protection	(Increase) percent Trade in compliance (measured thru CM program)	A1	TBD (new measure, 7/06)	TBD	
			Mission and Business - Mode of Delivery	Knowledge Creation and Management	Knowledge Dissemination	Percent trade aware of -on-line search capability of Harmonized Tariff Schedule (HTS)	A1	TBD (new measure, 7/06)	TBD	
			Customer Results	Service Accessibility	Automation	(Reduced) percentage paperwork for the Trade	All ESAR	TBD (new measure, 7/06)	TBD	
			Processes and Activities	Cycle Time and Timeliness	Cycle Time	(Decrease) time to process at primary (truck)	R4	5% faster than ACS	18% faster than ACS	17.2% faster than ACS
			Technology	Effectiveness	User Satisfaction	(Increase) percent users satisfied with system usability (data presentation, entry, and extraction; intuitive user interface, etc.)	All ESAR	TBD (new measure, 7/06)	TBD	
					Functionality	(Increase) number of documents for release and post release that can be submitted electronically	A2	TBD (new measure, 7/06)	TBD	
	4.6: Ensure revenue protection	4.6.1: Develop strategies to maximize collection efforts, for revenue owed the U.S. Government under existing laws and regulations, by ensuring that CBP's controls over the revenue process are keeping pace with changes in the trade environment.	Mission and Business Results - Support Delivery of Service	Revenue Collection	Debt collection	(Increase) percent debt managed/mitigated (as measured by sum of secured Duties, Taxes and Fees (DTF) and bills collected divided by total amount owed).	A2	TBD (new measure, 7/06)	TBD	
			Customer Results	Customer Benefit	Customer Impact or Burden	(Increase) monetary benefit to the Trade due to Periodic Monthly Statement float	A2	TBD (new measure, 7/06)	TBD	
			Processes and Activities	Productivity & Efficiency	Productivity	(Increase) percentage Duties, Taxes and Fees (DTF) paid via Periodic Monthly Statement (PMS)	R3	11%	30%	27%
						(Increase) dollar amount of bills collected	A2	TBD (new measure, 7/06)	TBD	
					Efficiency	(Decrease) time to process collections	A2	TBD (new measure, 7/06)	TBD	
			Technology	Effectiveness	IT Contribution to Process, Customer, or Mission	(Increase) number of e-bonds received	A2	TBD (new measure, 7/06)	TBD	

Appendix F. ACE Performance Measures, continued

CBP Strategic Goals	Objectives	Strategies	Measurement Area	Measurement Category	Measurement Grouping	Performance Measures	Release	Baseline FY05	Planned Improvement to Baseline	Actual Results FY06
5: Protecting America and its Citizens: Contribute to a safer America by prohibiting the introduction of illicit contraband, such as illegal drugs, counterfeit goods and other harmful materials and organisms, into the United States.	5.1: Utilize information and intelligence	5.1.3: Deploy Multi-Modal Manifest and new screening and targeting tools within ACE to ensure that all forms of transportation information are collected in advance and appropriately screened for enforcement concerns.	**Mission and Business Results** - Service for Citizen	Law Enforcement	Substance Control	(Increase) percent of cargo contraband targeted - (as measured by the Number of shipments accepted for exam by CBP officers above the mandatory review threshold divided by the total Number of system selected shipments above the mandatory review threshold)	M1, M2, S1, S2	TBD (new measure, 7/06)	TBD	
			Customer Results	Customer Benefit	Customer Satisfaction	(Increase) percent customer satisfaction with the seamless filing of Multi-Modal Manifest (air)	M2	TBD (new measure, 7/06)	TBD	
			Processes and Activities	Productivity & Efficiency	Productivity	(Increase) number of contraband criteria requests by source (national, field, HQ, etc.)	S1, S2	TBD (new measure, 7/06)	TBD	
				Quality	Errors	(Decrease) number of overrides of contraband intensives (by type)	S1, S2	TBD (new measure, 7/06)	TBD	
				Financial	Savings & Cost Avoidance	(Decrease) costs due to decreased in-bond follow-up	M1, M2	TBD (new measure, 7/06)	TBD	
			Technology			(Decrease) number of overrides of system generated generals resulting in positive contraband related findings by type	S1, S2	TBD (new measure, 7/06)	TBD	
				Reliability and Availability	Reliability	(Increase) percent reliability of wireless medium (successful transmissions divided by total transmissions)	M1, M2	TBD (new measure, 7/06)	TBD	
6: Modernizing and Managing: Build a strong, modern management infrastructure that assures the achievement of business results.	6.1: Maintain financial integrity	6.1.1: Maintain and improve financial and administrative systems, along with increasing the use of technology to provide customers and stakeholders with accurate, timely and integrated data.	**Mission and Business Results** - Management of Government Resources	Financial Management	Reporting and Information	(Increase) percent assurance of financial data as measured by financial statement audit	A1, A2	TBD (new measure, 7/06)	TBD	
			Processes and Activities	Productivity & Efficiency	Efficiency	(Decrease) time to reconcile to the general ledger	A1	TBD (new measure, 7/06)	TBD	
			Technology	Information & Data	Internal Data Sharing	(Increase) population of CBP workforce using ACE to manage trade information	R2	11%	18%	15%
					External Data Sharing	(Increase) number of Trade accounts	R2	2%	6%	3%
				Effectiveness	IT Contribution to Process, Customer, or Mission	(Increase) percent of revenue collections financially integrated	A2	TBD (new measure, 7/06)	TBD	

Appendix G. Schedule Outlook

The following table compares ACE Program Plan Version 11.2 Development Milestones (program baseline) with current projections.

Release Name	Key Milestone	Acquisition Program Baseline	Current Outlook
ESAR (Release 5)			
• ESAR: Master Data and Enhanced Accounts (A1)	PRR	07/17/06	03/01/07
	ORR	12/19/06	05/03/07
	FOC*	09/08/08	05/31/07
• ESAR: Entry Summary and Revenue (A2)	PRR	07/17/06	07/10/08
	ORR	12/19/06	10/30/08
	FOC	09/08/08	11/27/08
e-Manifest: All Modes – Cargo Control and Release (Release 6)			
• e-Manifest: Rail and Sea Manifest Manifest (M1)	PRR	11/03/08	07/10/08
	ORR	04/06/09	10/30/08
	FOC	03/11/10	12/24/09
• e-Manifest: Air Manifest and Cargo Release (M2)	PRR	11/03/08	03/05/09
	ORR	04/06/09	06/25/09
	FOC	03/11/10	08/19/10
• e-Manifest: Exports and Mail Entry Writing System (M3)	PRR	11/03/08	04/08/10
	ORR	04/06/09	07/01/10
	FOC	03/11/10	07/29/10
Exports and Cargo Control (Release 7)			
• ESAR: Drawback, Protest, & Importer Activity Summary Statement (A3)	PRR	02/15/10	04/08/10
	ORR	07/16/10	07/01/10
	FOC	07/22/11	07/29/10
• e-Manifest: Custodial Entities, Pipelines, and Batch Processes (M4)	PRR	02/15/10	05/05/11
	ORR	07/16/10	07/28/11
	FOC	07/22/11	08/25/11
Screening and Targeting			
• Targeting Framework (S2)	PRR	04/27/06	09/28/06
	ORR	07/20/06	10/31/06
	FOC	07/20/06	12/04/06
• Advanced Targeting (S3)	PRR	11/29/06	07/19/07
	ORR	02/28/07	08/23/07
	FOC	02/28/07	09/20/07

* Full Operational Capability (FOC) reflects the date by which releases will be fully deployed nationwide.

Appendix H. Acronyms and Selected Definitions

ACE	Automated Commercial Environment. The first major project of U.S. Customs and Border Protection Modernization. Through enhanced business processes and the new technology in ACE that will support them, border security and trade facilitation will be greatly enhanced.
APB	Acquisition Program Baseline
ATS	Automated Targeting System
CBP	U.S. Customs and Border Protection
CDR	Critical Design Review
CIO	Chief Information Officer
CSI	Container Security Initiative
CSPO	Cargo Systems Program Office: The program office responsible for ACE cargo management capabilities and other cargo processing systems
C-TPAT	Customs-Trade Partnership Against Terrorism
DHS	Department of Homeland Security
e-Manifest	Electronic Manifest
EDI	Electronic Data Interchange
ESAR	Entry Summary, Accounts, and Revenue
EVM	Earned Value Management
FOC	Full Operational Capability
FTZ	Foreign Trade Zone
FY	Fiscal Year
GAO	Government Accountability Office
HCM	Human Capital Management
IEEE	Institute of Electrical and Electronic Engineers
IR	Importer of Record
ITDS	International Trade Data System
IV&V	Independent Verification and Validation
LCCM	Life-Cycle Cost Model
OIT	Office of Information and Technology
OMB	Office of Management and Budget

OPM	Office of Personnel Management
ORR	Operational Readiness Review
PGA	Participating Government Agency
PDR	Preliminary Design Review
PIA	Privacy Impact Assessment
PMR	Program Management Review
PRR	Production Readiness Review
PRM	Performance Reference Model
PTR	Product Trouble Report
S&T	Screening and Targeting
SDLC	Software Development Lifecycle
SHCMP	Strategic Human Capital Management Plan
TASPO	Targeting and Analysis Systems Program Office: The program office responsible for Screening and Targeting systems, including ATS and ACE Screening and Targeting development efforts